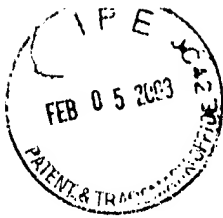


Docket No: 21043-86
LE9-00-043



PATENT
--Expedited Processing
Amendment Under
37 CFR 1.116--

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2/11/03

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Robert A. Gurnie

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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Applicant: Cavill et al. :
Serial No.: 09/610,250 : Group Art Unit: 2624
Filed: July 5, 2000 : Examiner: T. Lee
For: **Printer Apparatus With
Selectable Photo Enhancement,
Project and Settings Storage,
Dynamically Definable User Interface
and Functions and Template
Definition** :

REQUEST FOR RECONSIDERATION UNDER 37 C.F.R. 1.116

Box AF
Commissioner for Patents
Washington, DC 20231

Dear Sir:

The Official Action dated November 29, 2002 has been carefully considered. Accordingly, the following remarks are believed sufficient to place the present application in condition for allowance. Reconsideration is respectfully requested.

Applicants appreciate the Examiner granting a telephonic interview on January 21, 2003 to discuss the claims and the prior art. During the telephonic interview, Applicants discuss the claimed invention and the Hu et al. reference. Applicants and the Examiner agreed that Hu et al. do not disclose having an input member for receiving computer-readable memory containing one or more digital photographs captured by an external digital camera and there is no teaching of transferring a digital photograph captured by an external digital camera to a printable medium by Hu et al.

apparatus is capable of calculating the pixel pattern to be printed on the printable medium and printing the digital files, the calculating and printing being independent of an external host device.

Claim 7 is directed to a photoprinter. The photoprinter comprises an input member for receiving one or more digital photographs recorded on the computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control system for generating a printed page corresponding to the digital photograph; wherein the integrated user interface comprises a dynamically expandable user interface, and further wherein the photoprinter comprises the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device.

Hu et al. broadly disclose a multi-functional document processing system for faxing, copying, printing or scanning document information and for transferring and receiving document signals to and from a remote device. However, Applicants find no teaching or suggestion in Hu et al. of a stand-alone photoprinter for transferring one or more digital photographs captured by an external digital camera to a printable medium. Similarly, Applicants find no teaching of an input member for receiving one or more digital photographs recorded on computer-readable memory associated with the digital camera.

Anticipation under 35 U.S.C. §102 requires the disclosure in a single prior art reference of each element of the claims under consideration, *Alco Standard Corp. v. TVA*, 808 F.2d 1490, 1 U.S.P.Q.2d 1337, 1341 (Fed. Cir. 1986). As discussed during the telephone interview, Applicants find no teaching by Hu et al. of a stand-alone printing apparatus for transferring one or more digital photographs recordable on a computer-readable memory associated with an external digital camera to a printable medium as recited in claim 1, therefore Hu et al. do not disclose each element of the claims under consideration and

therefore do not anticipate the stand-alone printing apparatus of claim 1, or as employed in the photoprinter of claim 7. It is therefore submitted that the presently claimed stand-alone printing apparatus and photoprinter are not anticipated by Hu et al., whereby the rejection under 35 U.S.C. §102(b) has been overcome. Reconsideration is respectfully requested.

In the Official Action, claims 10 and 14 were rejected under 35 U.S.C. §103 as being unpatentable over Hu et al. in view of Timmermans (U.S. Patent No. 5,543,925). The Examiner acknowledged that Hu et al. do not teach an ability to store setting and user selections on a removable storage medium, but asserted that Timmermans teaches a playback apparatus which utilizes a removable memory module which is used for storing user-sourced picture parameter data. The Examiner concluded that it would have been obvious for one of ordinary skill in the art to modify the teachings of Hu et al. by providing a removable memory module such as taught by Timmermans. However, as will be set forth in detail below, it is submitted that the photoprinters of claims 10 and 14 are nonobvious over and patentably distinguishable from the teachings of Hu et al. in view of Timmermans. Accordingly, these rejections are traversed and reconsideration is respectfully requested.

The deficiencies of Hu et al., with respect to independent claim 7 are discussed in detail above. That is, Applicants find no teaching in Hu et al. of a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera. As discussed during the telephonic interview with the Examiner, Hu et al. fail to teach or suggest an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera. The deficiencies of Hu et al. are not resolved by Timmermans.

Timmermans discloses a photographic film scanning system to generate digitized pictures from photographic images. Timmermans discloses a picture playback apparatus for retrieving pictures from a first digital database medium in which digitized pictures have been stored and for storing in a second database medium that second control information for the

control of selective adaptation of the reproduction for a plurality of individual digitized pictures. Timmermans discloses an external control unit which controls the recording and applies optional picture processing to enhance, correct or edit the picture representation. Timmermans discloses the control unit as an external computer and Timmermans recommends in column 6, lines 36-39 an expensive computer system for the control unit is desired because of the complexity of the control and picture processing functions.

To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art, *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974). Furthermore, references relied upon to support a rejection under 35 U.S.C. §103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public, *In re Payne*, 203 U.S.P.Q. 245 (C.C.P.A. 1979).

While Timmermans discloses a playback apparatus for displaying scanned photographic images from photographic film negatives, Applicants find no teaching or suggestion by Timmermans of a photoprinter comprising an input member for receiving one or more digital photographs recorded on the computer-readable memory associated with an external digital camera, wherein the photoprinter is capable of calculating a pixel pattern to be printed on the printable medium and printing digital files, the calculating and printing being independent of an external host device. In view of the failure of Timmermans, alone or in combination with Hu et al. to teach a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera and wherein the photoprinter comprises the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device, Timmermans in view of Hu et al. do not render the presently claimed photoprinters obvious. Moreover, references that teach away cannot serve to create a prima facie case of obviousness. *In re Gurley*, 27 F.3d 551, 553, 31 U.S.P.Q.2d 1130, 1132 (Fed. Cir. 1994). A reference may be said to teach

away when a person of ordinary skill, upon reading the reference, will be discouraged from following the paths set out in the reference, or would be led in a direction divergent from the path that was taken by the Applicant, or if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the Applicant. *Id.* The claimed invention requires a photoprinter comprising the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device. Timmermans discloses the need for an external host device, i.e., computer system, for the calculation and printing of the digital photographs. It is therefore submitted that the presently claimed photoprinters are nonobvious over and patentably distinguishable from Timmermans in view of Hu et al., whereby the rejection under 35 U.S.C. §103 has been overcome. Reconsideration is respectfully requested.

In the Official Action, claims 11-13 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hu et al. in view of Cheng et al. (U.S. Patent No. 6,012,070). The Examiner noted that Hu et al. do not teach an image processing system further comprising template definition and printing, wherein the template definition comprises one or more items selected from the group consisting of photo images, background art, images and text selection, or comprises the position, size, and physical characteristics corresponding to the items. The Examiner relied on Cheng et al. as teaching a method for defining and printing templates, such as graphics, variable text and images. The Examiner asserted that the ability to manipulate the size, position and physical characteristics of the template, while not mentioned by Cheng et al., is a well-known editing function that would have been an obvious modification to one of ordinary skill in the art. The Examiner asserted that it would have been obvious for one of ordinary skill in the art to modify the teaching of Hu et al. by providing a method for defining and printing templates, as taught by Cheng et al. However, as will be set forth in detail below, it is submitted that the photoprinters of claims 11-13 are

nonobvious over and patentably distinguishable from the teachings of Hu et al. in view of Cheng et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

Claims 11-13 depend from claim 7. The deficiencies of Hu et al. with respect to claim 7 are discussed above. That is, Hu et al. fail to disclose a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera and further comprising an integrated user interface, wherein the integrated user interface comprises a dynamically expandable user interface and further wherein the photoprinter comprises the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device. These deficiencies are not resolved by Cheng et al. Moreover, as defined by claim 11, the present invention is directed to a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; wherein the integrated user interface comprises a dynamically expandable user interface, and further wherein the photoprinter comprises the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device; and further wherein the image processing system further comprises template definition and printing.

The Cheng et al. reference discloses a digital design station which provides users the ability to dynamically create and modify templated documents and to transport electronically over telephone lines to a printing facility where physical documents can be created with color high resolution printing.

When a rejection depends on the combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references. *In re Rouffet*, 149 F.3d

1350, 1355, 47 U.S.P.Q.2d 1453, 1456 (Fed. Cir. 1998). The test for combining references is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness of making the combination. *In re Beattie*, 974 F.2d 1309, 1311-1312, 24 U.S.P.Q.2d 1040, 1042 (Fed. Cir. 1992). Applicants find no teaching, suggestion or motivation for the combination of Hu et al. and Cheng et al. Cheng et al. requires an external computer system to generate the document to be printed which is then transferred over telephone line to the external printing facility, whereas Hu et al. disclose a multi-functional printing system. As such, Applicants find no teaching or suggestion or motivation for the combination for Hu et al. and Cheng et al. Moreover, Applicants find no teaching or suggestion by Cheng et al. of a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control for generating a printed page corresponding to the digital photograph; wherein the integrated user interface comprises a dynamically expandable user interface, and further wherein the photoprinter comprises the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device. In view of the failure of Cheng et al., alone or in combination with Hu et al. to teach or suggest a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control system for generating a printed page corresponding to the digital photograph; wherein the integrated user interface comprises a dynamically expandable user interface, and further wherein the photoprinter comprises the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device, Hu et

al. in view of Cheng et al. do not render the presently claimed photoprinters obvious. It is therefore submitted that the presently claimed photoprinters are nonobvious over and patentably distinguishable from Hu et al. in view of Cheng et al., whereby the rejection under 35 U.S.C. §103 has been overcome. Reconsideration is respectfully requested.

In the Official Action, claim 15 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hu et al. in view of Timmermans and in further view of Cheng et al. The Examiner asserted that claim 15 is obvious for the reasons set forth with respect to claim 11. However, as will be set forth in detail below, it is submitted that the photoprinter of claim 15 is nonobvious over and patentably distinguishable from the teachings of Hu et al. in view of Timmermans and in further view of Cheng et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

Claim 15 depends from claim 14. The deficiencies of Hu et al. in view of Timmermans with respect to claim 14 are discussed above. That is, Hu et al. in view of Timmermans fail to disclose a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; and wherein the image processing system comprises the ability to store settings and user selections on a removable storage memory medium, and further wherein the photoprinter comprises the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device. These deficiencies are not resolved by Cheng et al. Moreover, as defined by claim 15, the present invention is directed to the photoprinter of claim 14, wherein the image processing system further comprises template definition and printing.

To establish prima facie obviousness of the claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka, supra*. In view of the failure of Hu et al. in view of Timmermans and in further view of Cheng et al., alone or in combination to teach, disclose or suggest photoprinters comprising *inter alia*, an input

member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control system for generating a printed page corresponding to the digital photograph; wherein the image processing system comprises the ability to store settings and user selections on a removable storage media, and further wherein the photoprinter comprises the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device, and further wherein the image processing system further comprises template definition and printing, the combination of Hu et al. in view of Timmermans and Cheng et al. do not support a rejection under 35 U.S.C. §103.

It is therefore submitted that the presently claimed photoprinters is nonobvious and patentably distinguishable from Hu et al. in view of Timmermans and in further view of Cheng et al., whereby the rejection under 35 U.S.C. §103 has been overcome. Reconsideration is respectfully requested.

Claim 16 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hu et al. in view of Robinson (U.S. Patent No. 5,339,172). The Examiner noted that Hu et al. do not describe or teach an image processing system comprising the ability to independently enhance one or more images from each other on the same page. The Examiner asserted that it is well known in the art to enhance one or more images from each other on the same page. The Examiner asserted that Robinson teaches segmentation of an input image, and each segmented portion is enhanced independent of the enhancement of other portions. The Examiner asserted it would have been obvious for one of ordinary skill in the art to modify the teaching of Hu et al. by adding the independent enhancement of images as taught by Robinson. However, as will be set forth in detail below, it is submitted that the photoprinter of claim 16 is nonobvious over and patentably distinguishable from the teachings of Hu et al.

in view of Robinson. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

As defined by claim 16, the claimed invention is directed to a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control system for generating a printed page corresponding to the digital photograph; wherein the image processing system comprises the ability to independently enhance one or more images from each other on the same page, and further wherein the photoprinter comprises the capability of generating an pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device.

As noted above, Hu et al. broadly discloses a multi-functional document processing system. Robinson broadly discloses an apparatus and method for dividing an input image into one or a plurality of modes. Robinson discloses a method for reproduction of copies of an original from video image data created, for example, by electronic raster input scanning from an original document and a method of segmenting the input image into one or more plurality of modes to optimize the image for high frequency halftones, low frequency halftones, continuous tones or line copy, or a combination of the above. Robinson discloses segmentation of an input image, and each segmented portion is enhanced independent of the enhancement of the other portions. However, Applicants find no teaching, disclosure or suggestion of Robinson, alone or in combination with Hu et al. of a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera and an image processing system comprising the ability to independently enhance one or more images from each other on the same page. Moreover, Applicants find no teaching or suggestion by Robinson, alone or in

combination with Hu et al., of a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control system for generating a printed page corresponding to the digital photograph; wherein the image processing system comprises the ability to independently enhance one or more images from each other on the printed page, and further wherein the photoprinter comprises the capability of generating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device. The Examiner has asserted that Robinson teaches that the different type images need to be enhanced using different methods so that none of the images appearing on the document are degraded. However, Applicants assert that Robinson fails to disclose or suggest the capability to independently enhance one or more images from each other on the same printed page. Robinson discloses enhancement of a single image generated from the scanner of the copier. The present claim is directed to a photoprinter with the capability of enhancing one or more photos independently of each other on a printed page. In view of the failure of Hu et al. and Robinson, alone or in combination, to teach, disclose or suggest a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control system for generating a printed page corresponding to the digital photograph; wherein the image processing system comprises the ability to independently enhance one or more images from each other on the printed page, and further wherein the photoprinter comprises the capability of generating a pixel pattern to be printed on the printable medium and printing digital files, the calculating and printing being independent of

an external host device, the combination of Hu et al. and Robinson do not support a rejection under 35 U.S.C. §103.

It is therefore submitted that the presently claimed photoprinter is nonobvious over and patentably distinguishable from Hu et al. in view of Robinson, whereby the rejection under 35 U.S.C. §103 has been overcome. Reconsideration is respectfully requested.

In the Official Action, claim 17 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hu et al. in view of Robinson and in further view of Timmermans. The Examiner asserted that the reasons for rejecting claim 17 are the same as set forth with respect to claim 10. However, as will be set forth in detail below, it is submitted that the photoprinter of claim 17 is nonobvious over and patentably distinguishable from the teachings of Hu et al. in view of Robinson and in further view of Timmermans. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

Claim 17 depends from claim 16. The deficiencies of Hu et al. in view of Robinson with respect to claim 16 are discussed above. That is, Hu et al. in view of Robinson fail to disclose a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control system for generating a printed page corresponding to the digital photograph; wherein the image processing system comprises the ability to independently enhance one or more images from each other on the same printed page, and further wherein the photoprinter comprises the capability of generating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device. These deficiencies are not resolved by Timmermans. As noted above and with respect to claim 10, Timmermans discloses a photographic film scanning system to generate digitized pictures from the photographic images. Applicants find no teaching, disclosure or suggestion of Timmermans,

alone or in combination with Hu et al. in view of Robinson of a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control system for generating a printed page corresponding to a digital photograph; wherein the image processing system comprises the ability to independently enhance one or more images from each other on the same page and the ability to store settings and user selections on the removable storage medium, and further wherein the photoprinter comprises the capability of generating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device.

To establish prima facie obviousness of the claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka, supra*. As such, the combination of Hu et al., Robinson and Timmermans do not support a rejection under 35 U.S.C. §103. It is therefore submitted that the presently claimed photoprinter is nonobvious over and patentably distinguishable from Hu et al. in view of Robinson and in further view of Timmermans, whereby the rejection under 35 U.S.C. §103 as been overcome. Reconsideration is respectfully requested.

Claims 18-20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Hu et al. in view of Robinson and in further view of Cheng et al. The Examiner noted the reasons for rejecting claims 18-20 are the same as set forth with respect to claims 11-13, respectively. However, as will be set forth in detail below, it is submitted that the photoprinters of claims 18-20 are nonobvious over and patentably distinguishable from the teachings of Hu et al. in view of Robinson and in further view of Cheng et al. Accordingly, this rejection is traversed and reconsideration is respectfully requested.

Claims 18-20 depend from claim 16. The deficiencies of Hu et al. in view of Robinson with respect to independent claim 16 are discussed above. That is, Applicants find no teaching or suggestion by Robinson, alone or in combination with Hu et al., of a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control system for generating a printed page corresponding to the digital photograph; wherein the image processing system comprises the ability to independently enhance one or more images from each other on the printed page, and further wherein the photoprinter comprises the capability of generating a pixel pattern to be printed on a printable medium and generating digital files, the calculating and printing being independent of an external host device. These deficiencies are not resolved by Cheng et al.

Moreover, as defined by claims 18-20, the present invention is directed to the photoprinter of claim 16, wherein the image processing system further comprises template definition and printing. As noted above, Cheng et al. fail to teach or disclose a photoprinter comprising an input member for receiving one or more digital photographs recorded on computer-readable memory associated with an external digital camera; an image processing system for generating an image corresponding to each digital photograph; an integrated user interface; and a print control for generating a printed page corresponding to the digital photographs; wherein the integrated user interface comprises a dynamically expandable user interface, and further wherein the photoprinter comprises the capability of calculating a pixel pattern to be printed on a printable medium and printing digital files, the calculating and printing being independent of an external host device. Moreover, Applicants find no teaching or suggestion by Cheng et al., alone or in combination with Hu et al. in view of Robinson, of a photoprinter comprising an input member for receiving one or more digital photographs